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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,481	04/04/2002	Kazuhiro Takagi	AM100246-00	1417
26474 7590 09/21/2010 NOVAK DRUCE DELUCA + QUIGG LLP 300 NEW JERSEY AVENUE NW FIFTH FLOOR WASHINGTON, DC 20001				
EXAMINER				
LEVY, NEIL S				
ART UNIT		PAPER NUMBER		
1615				
MAIL DATE		DELIVERY MODE		
09/21/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/019,481

**Applicant(s)**

TAKAGI ET AL.

**Examiner**

NEIL LEVY

**Art Unit**

1615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 10, 13-17 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 13-17 and 48-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

#### ***Claim Rejections - 35 USC § 102***

Claims 1, 13-16, 48-51 & 53 stand rejected under 35 U.S.C. 102(e) as being anticipated by TREACY

Treacy has priority to US provisional application filed 3/12/99 , although Treacy was published after applicant's US filing date Treacy's US priority date predates applicants claim to priority based on Japanese application 11/190671 of 7/5/99.

TREACY is stated to be commonly owned at the time of filing of the instant, & so is available under 35 USC 102(e).

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Instant Claim 1 recites "A method for controlling a pest selected from the Isoptera, Hymenoptera, Orthoptera, and Psocoptera orders which comprises applying to said pest or to a wooden part or to soil in the habitat of said pest an effective amount of a hydrazine compound of formula (1): The specific, most limiting presentation of (I-1) is the compound of claim 48, which WAS also the elected & the preferred compound (page 5, lines 25-31). All other claims are less limiting than claim 48. Independent claims 15 & 16 recite the formula (I-1) as in claim 1.

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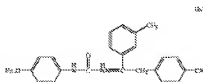
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Treacy provides methods for insect control (col. 1, lines 44-46) by application to crops & insect habitats (col. 7, lines 9-12, 17-25) of effective amounts of particularly preferred

compound Ia (col. 8 & claim 11).



Insects controlled are inclusive of ants (Formicidae family of the Hymenoptera order) & termites (the order Isoptera) at col. 7, lines 33-35.

The contacting of insects of TREACY is seen as the controlling of pests selected from Isoptera --- Psocoptera which comprises APPLYING the compound of formula (I) of APPLICANTS.

Compound I-1 of the instant invention, in its most limiting & definitive preferred form, (page 5, lines 25-31 of the instant specification, & as recited at claim 13) is identical to

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compound (1a) of Treacy (col. 8) who states it may be used to control Cockroach, ants, termites or the like (col. 7, lines 32-35). Application is to plant (crop) foliage or insect habitat (col. 7, lines 9-12). Claim 11 of Treacy, & compound (1a) meet all the instant compounds of claims 18-47, drawn to various specific moieties of formula I-1.

The language of instant independent claims 15 & 16 differ from claim 1 in that the Isoptera, termites, are limited to 4 families (Claim 15) and at claim 16 to the ant family, Formicidae of the Hymenoptera order.

The termite families are common, & we see them included in Treacy's generic Termites.

Treacy's ants are seen as included in the ant family, Formicidae.

Note that the application rates are not claimed. One would use the rates of TREACY to control.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 10, 13-17, 48-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over STEFFERUD in view of TAKAGI et al.

Stefferd is an old reference identifying the insect pests of the instant as well known household insect pests. Stefferud at Page 469 shows household insect pests which

need to be controlled include those which invade homes & attack wood, & are inclusive of the instant orders of claim 1 termites- ISOPTERA and , ants - HYMENOPTERA at paragraph 2, of cockroach & cricket(ORTHOPTERA) at paragraph 3 & psocids (PSOCOPTERA) at paragraph 4. Others as household pests are powder post beetles (paragraph 2), flies & mosquitoes (paragraph 4). Stefferud is not cited for the particular compounds applied to the household habitats. Stefferud used DDT & CHLORDANE, pesticides of old, now considered too toxic for household use.

TAKAGI does disclose compounds that can control a wide variety of insect pests, inclusive of the instant species. TAKAGI shows 14 examples of tested compounds, one of which, at example 14 (col. 61) is the elected species & most limiting of the instant claimed compounds – that of the instant claim 13, 48 & designated compound 261 at the instant disclosure at tables 7& 8. Takagi applies the insecticides to control insects at the instantly claimed application sites: inside houses (col. 63, lines 9-17), & to soil, trees & crops, the habitats of various sanitary & horticultural insect pests (col. 62, lines 8-12, 44,60) inclusive of some of the household insects cited by Stefferud- powder post beetles, flies & mosquitoes. These application sites are the subject sites of instant independent claims 1- wooden parts or soil, claim 15, a habitat or place at which occurrence of said pest is expected, & claim 16- to pests, crops or soil- .

Application rates are 0.01-50% of compositions (col. 64, lines 32-38) & @ 0.1- 5 kg/10 acres (col. 64, lines 38 – 56), as is desired & under conditions determinable by artisan in accord with known factors of consideration in effecting control of insect pests.

Although ant and termite are not specifically recited, the method steps, applying the instant compounds to the instant habitats & application sites (instant claim 1, a wooden part, or soil, instant claim 15, applying to protect a house, instant claim 16-applying to crops, soil) at the instant rates would result in the same control as of the instant invention as claimed, resulting in powder post beetle, mosquito, fly & sanitary Insect control, as recited by TAKAGI, & also in control of the equivalent associated household pests identified by Stefferud ; termites—and ant control, now required of all claims. The particular families of termites & ants are commonly found as household pests, & the Generic inclusion of ants & termites would be inclusive of these families, thus inclusive of the species of the generic concept, in this case inclusive of the families of termites Rhinotermitidae, & of ants Formicidae ,of instant claims .

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize pest control means to control household insects, as identified by Stefferud to include flies, ants, termites, psocids & powder post beetles, to use one of the exemplified Takagi formulations shown to have marked effectiveness (col. 63, lines 7-22) to control agricultural, forest insect, horticultural, & sanitary insect pests, when applied to trees, fields, inside of houses & ditches around houses ,at low

doses. The substitution of Takagi 's pesticide for the too toxic DDT & chlordane at the time of Stefferud would have been an obvious one at the time of the instant invention, as although Stefferud's pesticides are no longer accepted, the common household pests still need to be treated at their habitat's as shown by Steffrud.

The particular amounts and proportions of each ingredient are result effective parameters chosen to obtain the desired effects. The one of ordinary skill in the insecticide arts would have found it obvious to utilize a favored compound, one of the 14 exemplified, to test for efficacy against the particular household insect pest of concern, in order to determine the optimal compound and concentration to use , & have expectation of success, in consideration of the 2007 supreme court decision in KSR V TELEFLEX @ 82 USPQ 2d @ 1385. The 14 exemplified compounds of the art were known to have broad insecticidal effects on a large range of related and unrelated household pest insects as taught by Takagi. Given the demonstrated broad application efficacy of the art exemplified compounds, one of ordinary skill in the art could have pursued the known potential options of use on other common household insect pests with a reasonable expectation of success. The person of ordinary skill in the art would have good reason to pursue the art known broad insecticidal compounds to control and protect against common insecticidal pests. That such pursuit leads to success does not render it nonobvious.

Applicant has not provided any objective evidence of nonobvious or unexpected results that the administration of the particular compounds of the elected species provides any



greater or different level of prior art expectation as claimed. The Takagi example chosen for comparison in the Declaration of 2006 was not one of the 14 exemplified compounds, but rather one of the 400 or so of TABLE 7. The compound of TAKAGI'S example 14, compound 261 in TABLE 7, was 100% effective at rates of 500 ppm against cutworm, or 200 ppm (TABLE 8), against weevils.

This compound was shown effective in the Declaration at 300 & 3000 ppm against Argentine & harvester ants.

Takagi's compounds "were known to have broad insecticidal effects on a large range of related and unrelated household pest insects" (Arts. 8) and Takagi suggests applying them to soil, crops, houses, and areas around houses, as in the instant claims.

Examiner finds that applying Takagi's hydrazinecarboxamide compound 261 (the compound used in Takagi's example 14), to wood, crops, houses, or soil at 0.1-5 kg/10 acres or "under conditions determinable \*.. in accord with known factors of consideration" "would result in the same control as of the instant invention as claimed, resulting in powder post beetle, mosquito, fly & sanitary Insect control... & also in control of the equivalent household pests identified by Stefferud;" i.e., termites and ants.

#### **Response to Argument of 8/27/2010**

Applicant argues rejection under Treacy was reversed; however, the claims do not recited particular amounts, & thus Treacy does show exactly what is claimed

Applicant argues TAKAGI did not specifically address termites & ants, however, examiner finds that one in the art of concern would have had the expertise to apply the limited number of exemplified compounds in test against the limited number of household insects in accord with the testing paradigms as shown by Takagi, with expectation of success in determining optimum concentrations effective to control powder post beetles & other household insect pests , inclusive of termites & ants.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEIL LEVY whose telephone number is 571-272-0619. The examiner can normally be reached on Tuesday-Friday, 7 AM to 5:30 PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT A. WAX can be reached on 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ NEIL LEVY/  
Primary Examiner, Art Unit 1615

9/16/2010